

The Arroyo Center Report Collection, 1983-1985

0.6 cubic feet

JPL 110

History

In May 1982 the U.S. Army approached the Jet Propulsion Laboratory (JPL) with the concept of an analysis center, patterned after the RAND Corporation and its relationship with the U.S. Air Force. The Arroyo Center was to be a high-quality, interdisciplinary, future-oriented research and analysis organization. The purpose of the Center was to support the U.S. Army in studying a broad spectrum of long-range issues critically important to the Army's senior military and civilian leadership.

JPL established a study group to consider the Army request in May 1982. The Army Analysis Program (AAP) was run from JPL initially from Division 80, the Defense Programs Office. In May 1983, the Army Analysis Program was named the Arroyo Center and placed in Division 10, reporting directly to the JPL Director.

In October 1982, a committee was formed to establish the charter and mode of the program, and to explore the problems and opportunities the Army Analysis Program would pose for JPL. This committee was comprised of people with backgrounds in the defense community and the Caltech faculty. The Committee was chaired by former Lab Director William H. Pickering, called back into service for JPL. The report submitted to JPL by Pickering in January 1983 proved to be unsatisfactory to many of the other members on the Committee, as it represented the opinions of Pickering only, and had not been discussed with the other committee members. Three of the committee members voiced their displeasure with the report in correspondence to Pickering and disassociated themselves from it.

The Search Committee for a director for the Arroyo Center was chaired by JPL Deputy Director Charles H. Terhune. In September 1983, after a lengthy interview process, Richard A. Montgomery, Vice President of R&D Associates, was named as Director of the Arroyo Center. He was to be the equivalent of a JPL Assistant Laboratory Director. Research activities were undertaken and a few reports completed.

Major concerns among the Caltech faculty regarding the Arroyo Center surfaced in several Faculty Board meetings in November and December 1983. Caltech President Marvin L. Goldberger reported to the faculty in December 1983 that he had failed to adequately keep them informed about the development of the Arroyo Center. The faculty was concerned mainly with three issues: the extent of the Arroyo Center's classified work; Caltech's reputation if connected to military work at a center located off lab; and the lack of Center oversight by the Caltech and JPL administrations and the Caltech faculty.

In January 1984, the Caltech faculty voted for Caltech to divest itself of the Arroyo Center, arguing that the work of the Center was not making the best use of Caltech and of JPL. In September 1984, the U.S. Army Chief of Staff decided to transfer the Arroyo Center to the RAND Corporation. The JPL Arroyo Center was closed at the end of January 1985. The Arroyo Center continues today as a Federally Funded Research and Development Center.

Provenance

The collection was transferred from Lorraine Brakebill, Section 100, to the JPL Laboratory Records Center (LRC) on April 20, 1989. It was transferred from the LRC to the JPL Archives on December 20, 2000.

Collection Arrangement and Description

The collection is comprised of the contents of two binders of Reference Papers documenting the Arroyo Center, and publications of the Arroyo Center written during the time it was operated by JPL.

There were twenty-seven titled Arroyo Center reports, published and planned. Twenty of the twenty-one published reports are represented in the collection. Missing are two General Reports, listed as being not distributed; one Planning Report and three Systems and Technology Reports listed as being in press; and one Economics and Cost Growth Report.

The Compendium of Reference Papers (folders 2-4) is divided into twelve segments, with a table of contents at the front. It contains valuable information on the formation of the Arroyo Center, the 1982 Task Plan, numerous proposal reports, information on the Pickering Committee, and communications with the Caltech faculty, up to December 1983, when the binder was put together.

The Arroyo Center reports are organized by subject, in the order that they were listed in the publication listing. They are organized as follows: I. General, II. Planning, III. Economics and Growth, IIIa. General, IIIb. Case Studies; IV. Systems Technology, V. Training.

The various case study reports deal with the development and cost history of the Black Hawk Helicopter, M1 Abrams Tank, M2/M3 Bradley Fighting Vehicle System, AH-64 Apache Helicopter, and Patriot Missile System.

Of special note is "The Jet Propulsion Laboratory Arroyo Center 1982-84: Summary Report," (folder 5), dated January 31, 1985. It includes background information on the Arroyo Center and a recruiting brochure originally located in a pocket on the inside front cover. The brochure has been placed in a separate folder immediately following the report (folder 6).

Also of historical significance is a short report "Project Vista and Nuclear Weapons in Europe," (folder 9), written by Caltech History Professor David C. Elliott. Project Vista was a study of the defense of Western Europe conducted mainly in the summer of 1951. The project was proposed by the U.S. Army and undertaken by Caltech.

Conservation/Preservation

Standard preparations of documents for long term storage were completed.

Separation Statement

No items were separated from the collection.

Finding Aids

A listing of Arroyo Center publications is included in the collection (folder 1).

FILE FOLDER LIST

Box 1 of 2

- Fld. 1 Listing of JPL Arroyo Center Publications by Subject, 1985.
- Fld. 2 Compendium of Reference Papers, December 28, 1983. [folder 1 of 3]
- Fld. 3 [folder 2 of 3]
- Fld. 4 [folder 3 of 3]

JPL Arroyo Center Publications

I. General

- Fld. 5 *JPL Arroyo Center 1982-84: Summary Report*, JPL D-2191, AC-RD-85-004, January 31, 1985.
- Fld. 6 JPL Arroyo Center Recruitment Brochure, c. 1984.

II. Planning

- Fld. 7 Lawrence Caldwell and others, *Summary of Futures Projections Relevant to Army Long-Range Planning*, JPL D-2209, AC-RR-85-003, January 1985.
- Fld. 8 A. L. Loomis and others, *A Methodology for Threat Projection*, JPL D-2325, AC-RD-84-005, 1984.
- Fld. 9 David C. Elliott, *Project Vista and Nuclear Weapons in Europe*, JPL D-2194, AC-RD-85-002, April 1, 1985.
- Fld. 10 David Kassing and others, *Arroyo Center Collected Interim Reports*, JPL

D-2517, AC-RD-85-003, July 1, 1985.

- Fld. 11 Leslie Lewis, Vallance Cole, Holly Korbonski, *An Analysis of Early Warning Indicators*, JPL D-2195, AC-RD-85-005, April 1, 1985.

III. Economics and Cost Growth

A. General

- Fld. 12 James Quirk, Katsuaki Terasawa, *The Winner's Curse and Cost Estimation Bias in Pioneer Projects*, JPL D-2315, AC-RR-84-001, 1984.
- Fld. 13 Katsuaki L. Terasawa, *Cost of Production Rate Uncertainty*, JPL D-2316, AC-RR-84-002, May 1984.
- Fld. 14 Burton H. Klein, *The Economic Case for Flexibility*, JPL D-2322, AC-RD-84-002, April 18, 1984.

Box 2 of 2

- Fld. 15 William Gates, Joseph L. Midler, *Cost Growth in Major Army Weapon System Acquisitions: A Synthesis of Five Case Studies*, JPL D-2161, AC-RR-85-004, January 1985.

B. Case Studies

- Fld. 16 William R. Gates, *The Black Hawk Helicopter Development and Procurement Program*, JPL D-2317, AC-RR-84-003, June 27, 1984.
- Fld. 17 William Gates, *M1 Abrams Tank: Development and Procurement Cost History*, JPL D-2318, AC-RR-84-004, February 20, 1984.
- Fld. 18 William Gates, *M2/M3 Bradley Fighting Vehicle System: Development and Procurement Cost History*, JPL D-2319, AC-RR-84-005, April 30, 1984.
- Fld. 19 Joseph L. Midler, *AH-64 Apache: Development and Procurement Cost History*, JPL D-2323, AC-RD-84-003, December 30, 1983.
- Fld. 20 Joseph L. Midler, *Patriot Missile System: Development and Procurement Cost History*, JPL D-2324, AC-RD-84-004, January 24, 1984.

IV. Systems and Technology

- Fld. 21 G. L. Reisdorf and others, *Weather- and Environmental-Effects Intelligence: Needs and Methods, Volume I: Executive Summary*, JPL D-2162, AC-RR-84-007, August 1985.
- Fld. 22 G. L. Reisdorf and others, *Weather- and Environmental-Effects Intelligence: Needs and Methods, Volume II: Methodology and Recommendations*, JPL D-2162, AC-RR-84-007, August 1985.
- Fld. 23 G. L. Reisdorf and others, *Weather- and Environmental-Effects Intelligence: Needs and Methods, Volume III: Technical Details*, JPL D-2162, AC-RR-84-007, August 1985.
- Fld. 24 D. Liepmann, P. I. Moynihan, *Phosphorus Monitoring for Chemical-Warfare Treaty Verification*, JPL D-2320, AC-RD-85-009, February 1, 1985.
- Fld. 25 Bert Hansen, III, *Phase I Report: Implications of Biotechnology to Army Policy*, JPL D-2433, AC-RR-85-005, March 14, 1985.
- Fld. 26 Marlin Kroger and others, *Position Location and Navigation Study: Interim Report*, JPL D-2122, AC-RD-85-008, February 1985.

V. Training

- Fld. 27 Richard W. Davies, *A Scientist's First Look at the NTC*, JPL D-2321, AC-RD-84-001, October 1983.

CATALOG DESCRIPTION

Arroyo Center Report Collection, 1983-1985

0.6 cubic ft. (27 folders)

In May 1982 the U.S. Army approached the Jet Propulsion Laboratory (JPL) with the concept of an analysis center, patterned after the RAND Corporation and its relationship with the U.S. Air Force. The Arroyo Center was to be a high-quality, interdisciplinary, future-oriented research and analysis organization. The purpose of the Center was to support the U.S. Army in studying a broad spectrum of long-range issues critically important to the Army's senior military and civilian leadership.

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Finding aid available in the repository.

Tracings

Jet Propulsion Laboratory
California Institute of Technology
Arroyo Center
U.S. Army
Project Vista
Black Hawk Helicopter
M1 Abrams Tank
M2/M3 Bradley Fighting Vehicle System
AH-64 Apache Helicopter
Patriot Missile System
Pickering, William H., 1910-
Terhune, Charles H., Jr., 1916-
Montgomery, Richard A.
Caldwell, Lawrence
Kassing, David
Layne, Christopher
Lewis, Leslie
Mackin, Robert, Jr.
Shisko, Robert
Zycher, Benjamin
Loomis, A. L.
de Gyurky, S. M.
Aston, M. B.
Lorden, G.
Goldsmith, Martin
Elliott, David C.
Cole, Vallance
Korbonski, Holly
Quirk, James
Terasawa, Katsuaki L.
Klein, Burton H.

Gates, William R.
Midler, Joseph L.
Reisdorf, G. L.
Vickers, J. M.
Liddle, S. G.
Holland, R.
Liepmann, D.
Moynihan, P. I.
Hansen, Bert, III
Kroger, Marlin
Mulhall, Brendan
Potts, Byron
Shoemaker, Harold
Davies, Richard W.

Accession 2000-28.